

US EPA ARCHIVE DOCUMENT

CATALOG DOCUMENTATION  
REGIONAL EMAP DATABASE  
1993-1994 NEW YORK/NEW JERSEY HARBOR SYSTEM  
STATION LOCATION AND VISIT DATA

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1. DATA SET IDENTIFICATION

1.1 Title of Catalog document

Regional EMAP Database  
1993-1994 New York/New Jersey Harbor System  
Station Location and Visit Information by Site

1.2 Author of the Catalog entry

Melissa Hughes, OAO Corporation

1.3 Catalog revision date

7 January 1997

1.4 Data set name

STATION LOCATION AND VISIT INFORMATION

### 1.5 Task Group

Regional Environmental Monitoring and Assessment Program

### 1.6 Data set identification code

220

### 1.7 Version

001

### 1.8 Requested Acknowledgment

If you plan to publish these data in any way, EPA requires a standard statement for work it has supported:

"Although the data described in this article have been funded wholly or in part by the U. S. Environmental Protection Agency through its EMAP-Estuaries Program, it has not been subjected to Agency review, and therefore does not necessarily reflect the views of the Agency and no official endorsement should be inferred."

## 2. INVESTIGATOR INFORMATION

### 2.1 Principal Investigator

Ms. Darvene A. Adams  
U.S. Environmental Protection Agency - Region II

### 2.2. Investigation Participant

Mr. Joel S. O'Connor  
U.S. Environmental Protection Agency - Region II

## 3. DATA SET ABSTRACT

### 3.1 Abstract of the Data Set

The STATION LOCATION and VISIT data sets provide geographic and visit information on the sites sampled in the New York/New Jersey Harbor region. The latitude and longitude for each station are given, as well as the area represented by a station. The water column depth at the time of sampling and the presence/absence of trash is also reported. Stations were selected probabilistically using a stratified random design.

### 3.2 Keywords for the Data Set

sampling sites, latitude, longitude, depth, trash

#### 4. OBJECTIVES AND INTRODUCTION

##### 4.1 Program Objective

The project was designed to support resource management decisions related to pollution control and remediation throughout the New York/New Jersey (NY/NJ) Harbor and Bight Apex and to assist the New York-New Jersey Harbor Estuary Program (HEP) in developing a contaminant monitoring strategy to be included in the Comprehensive Conservation and Management Plan (CCMP) for the NY/NJ Harbor system.

##### 4.2 Data Set Objective

To provide accurate station location and visit information for each site visited in the NY/NJ harbor region.

##### 4.3 Data Set Background Discussion

The New York/New Jersey Harbor System Sediment Assessment was based on methods used in the EMAP-Estuaries program. A probability-based sampling design ensured an unbiased estimation of condition and that all areas within the system were potentially subject to sampling. The probability based sampling design also allowed calculation of confidence limits around estimates of condition.

##### 4.4 Summary of Data Set Parameters

STATION LOCATION and VISIT data set values were based on the geographic location of the station and other observations recorded at the time of the visit.

#### 5. DATA ACQUISITION AND PROCESSING METHODS

##### 5.1 Data Acquisition

###### 5.1.1 Sampling Objective

Locate sampling sites, measure depth of water column and make observations on presence/absence of trash

###### 5.1.2 Sample Collection Methods Summary

###### SAMPLING DESIGN

One hundred sixty-eight sites were sampled, 28 in each of 6 sub-basins; fourteen were sampled each year. Each year, sites were selected by randomly placing a grid structure over the study area, selecting 14 grid cells at random from each stratum, and selecting a random location from within the selected cells. Cells were of equal area within strata, except for the Newark Bay stratum, where grid cell size was altered to ensure sampling in the Arthur Kill, Passaic River and the Hackensack River.

#### 5.1.3 Sampling Start Date

July 1993  
July 1994

#### 5.1.4 Sampling End Date

September 1993  
September 1994

#### 5.1.5 Platform

Sampling was conducted from two USEPA vessels, the R/V CLEAN WATERS and OSV PETER W. ANDERSON.

#### 5.1.6 Sampling Gear

LORAN-C  
Differential-GPS (D-GPS)  
Global Positioning System (GPS)  
sonar

#### 5.1.7 Manufacturer of Sampling Equipment

NA

#### 5.1.8 Key Variables

The latitude and longitude of the station location were determined at the time of sampling. According to EPA Locational Policy: 1. Latitude is always presented before longitude; 2. Latitude and longitude are recorded as decimal degrees. The specific method, Loran or GPS, of determining the latitude and longitude is also recorded.

#### 5.1.9 Collection Method Calibration

NA

#### 5.1.10 Sample Collection Quality Control

NA

#### 5.1.11 Sample Collection Method Reference

Overton, W.S., D. White and D.L. Stevens. 1990. Design Report for EMAP: Environmental Monitoring and Assessment Program. EPA/600/3-91/053. U.S. Environmental Protection Agency, ORD, Washington, DC.

### 5.2 Data Preparation and Sample Processing

Not applicable

## 6. DATA MANIPULATIONS

Most values were assigned, based on geographic location.

## 6.1 Name of new or modified values

NA

## 6.2 Data Manipulation Description

NA

## 6.3 Data Manipulation Examples

Not applicable.

## 7. DATA DESCRIPTION

## 7.1 Description of Parameters

## 7.1.1 Station Location

#	Parameter SAS Name	Type	Data Len	Format	Parameter Label
1	STATION	Char	10	\$10	Station Identifier
2	STA_AREA	Num	8	7.5	Segment Area (sq km) (NB only)
3	STA_LAT	Num	8	10.6	Station Latitude
4	STA_LNG	Num	8	11.6	Station Longitude

## 7.1.2 Station Visit

#	Parameter SAS Name	Data Type	Len	Format	Parameter Label
1	STATION	Char	10	\$10	Station Identifier
2	EVNTDATE	Num	8	DATE7.	Date of Sample Collection
3	STADEPTH	Num	8	8.4	Depth (m)
4	TRASH	Char	1	\$1	Trash Present (Y/N)

## 7.1.6 Precision to which values are reported

The precision is indicated by the attribute format reported under 7.1

## 7.1.7 Minimum value in data set

STA\_AREA      0.07463  
 STA\_LAT       40.176500  
 STA\_LNG       73.350167  
 STADEPTH      2.0117

## 7.1.8 Maximum value in Data Set

STA\_AREA      1.81194  
 STA\_LAT       41.059133  
 STA\_LNG       74.271583  
 STADEPTH      41.1480

## 7.2 Data Record Example

### 7.2.1 Column Names for Example Records

#### 7.2.1.1 Station Location

STATION	STA_AREA	STA_LAT	STA_LNG
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#### 7.2.1.2 Station Information

STATION	EVNTDATE	STADEPTH	TRASH
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### 7.2.2 Example Data Records

#### 7.2.2.1 Station Location

OBS	STATION	STA_AREA	STA_LAT	STA_LNG
1	NB108	0.17718	40.740333	74.117750
2	NB109	1.00948	40.614200	74.196883
3	NB110	0.32260	40.695883	74.115450
4	NB111	0.16701	40.720967	74.120850
5	NB112	0.84398	40.681450	74.141450

#### 7.2.2.2 Station Information

OBS	STATION	EVNTDATE	STADEPTH	TRASH
1	BA002	030CT93	12.4968	
2	BA005	030CT93	20.7264	
3	BA007	040CT93	26.8224	
4	BA010	040CT93	18.8976	
5	BA012	040CT93	26.2128	Y

## 8. GEOGRAPHIC AND SPATIAL INFORMATION

### 8.1 Minimum Longitude

-74 Degrees 16 Minutes 17.76 Decimal Seconds

### 8.2 Maximum Longitude

-73 Degrees 21 Minutes 0.72 Decimal Seconds

### 8.3 Minimum Latitude

40 Degrees 10 Minutes 35.00 Decimal Seconds

### 8.4 Maximum Latitude

41 Degrees 4 Minutes 53.22 Decimal Seconds

### 8.5 Name of area or region

New York/New Jersey Harbor System

Six sub-basins were sampled in the New York/New Jersey Harbor, including: Upper Harbor, Newark Bay,

Lower Harbor (includes Raritan and Sandy Hook Bays), Jamaica Bay, western Long Island Sound and the New York Bight Apex. For purposes of this study, the region includes the lower portions of the Hudson, Passaic, Harlem, Hackensack and Raritan Rivers, upstream to a near-bottom salinity of 15 ppt, the East River to Long Island Sound and Lower Harbor to the Atlantic Ocean. The New York Bight Apex is defined as the area of ocean bounded on the northwest by the transect from Sandy Hook, NJ to Rockaway Point, NY, the east by 73 deg 30' W longitude and the south by 40 deg. 10'N latitude. The eastern boundary of the western Long Island Sound sub-basin is 73 deg 24' W longitude (from Eaton's Neck Point, NY to Norwalk, CT).

## 9. QUALITY CONTROL AND QUALITY ASSURANCE

### 9.1 Data Quality Objectives

NA

### 9.2 Data Quality Assurance Procedures

NA

## 10. DATA ACCESS

### 10.1 Data Access Procedures

Data can be downloaded from the WWW server.

### 10.2 Data Access Restrictions

Data can only be accessed from the WWW server.

### 10.3 Data Access Contact Persons

Ms. Darvene A. Adams  
U.S. EPA Region II

### 10.4 Data Set Format

NA

### 10.5 Information Concerning Anonymous FTP

Data cannot be accessed via ftp.

### 10.6 Information Concerning Gopher and WWW

Data can be downloaded from the WWW servers.

### 10.7 EMAP CD-ROM Containing the Data Set

Data are not available on CD-ROM



## 11. REFERENCES

Adams, D.A., J.S. O'Connor and S.B. Weisberg. 1996. Sediment Quality of the NY/NJ Harbor System. Draft Final Report. U.S. Environmental Protection Agency-Region 2. Edison, NJ. October 1996.

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## 12. TABLE OF ACRONYMS

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